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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,603	11/25/2003	Bernard O. Geaghan	59080US002	5621
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3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER				
NGUYEN, JIMMY H				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
11/28/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/721,603

**Applicant(s)**

GEAGHAN ET AL.

**Examiner**

JIMMY H. NGUYEN

**Art Unit**

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed 07/21/2008.
2. Claim 9 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected II or III, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 1/7/2008. Claims 1-8 and 10-16 are considered as follows:

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 6,100,538).

As to claim 1, Ogawa discloses a stylus (a stylus 2; Fig. 18; col. 14, line 21) for use with a light sensitive user input device (an optical digitizer; Fig. 17; col. 13, lines 35-42; col. 14, lines 17-19; col. 15, lines 22-24), the stylus comprising: a light-emitting device (a light emitting diode 24; Fig. 18) configured to emit a light beam including a different combination of colors as follows:

Case (i): the light beam includes only **green** light through a tip (a tip portion 22; Fig. 18; col. 14, line 22) of the stylus when the tip is NOT in contact with an input surface of the input device and a switch (21s) is in the ON position (by virtue of the operation described at Fig. 19; col. 14, lines 36-44);

Case (ii): the light beam including one of a number of different combined/mixed lights (by virtue of the lens 24a; Fig. 18) of **red and blue** based upon the writing pressure when the tip of the stylus sufficiently contacts the input surface (col. 14, lines 59-66) and the switch 21s is in the OFF position (Figs. 18-19; col. 14, lines 27-42 and col. 14, line 66 through col. 15, line 3); or

Case (iii): the light beam including one of a number of different combined/mixed lights (by virtue of the lens 24a; Fig. 18) of **red, green, and blue** based upon the writing pressure when the tip of the stylus sufficiently contacts the input surface (col. 14, lines 59-66) when the tip of the stylus sufficiently contacts the input surface and the switch 21s is in the ON position (Figs. 18-19; col. 14, lines 27-42 and col. 14, line 66 through col. 15, line 3).

Based upon the above three cases, Ogawa implicitly discloses the light beam including different color or a combined/mixed colors when the tip of the stylus sufficiently contacts the input surface. In other words, Ogawa discloses the light beam having a property (color) that abruptly changes when the tip of the stylus sufficiently contacts the input surface.

Ogawa further discloses the abrupt change in the (color) light beam being detectable by the light sensitive user input device (see col. 14, line 45 through col. 15, line 52).

Accordingly, all limitations of this claim are read in the Ogawa reference.

As to claim 2, Ogawa teaches the stylus (2) comprising a switch (element 21d; Fig. 18) coupled to the tip (22) and configured to actuate the change of the light beam based upon the writing pressure when the tip of the stylus sufficiently contacts the input surface (col. 14, lines 59-66).

As to claim 3, Ogawa teaches the abrupt change is a change in beam intensity (col. 15, lines 43-45).

As to claim 4, Ogawa teaches the abrupt change is a change in light beam color (col. 14, lines 59-64). Note that the blue light has a different wavelength from that of the red light. Accordingly, the additional feature of claim 4 is read in the Ogawa reference.

As to claim 5, since Ogawa teaches the abrupt change being a change in light beam color (col. 14, lines 59-64) and each of color components modulated independently (Fig. 19; col. 14, line 37 through col. 15, line 52), Ogawa teaches the abrupt change being a change in beam modulation.

As to claim 11, Ogawa teaches that either a switch (element 21s; Fig. 18) or a switch (element 21d; Fig. 18) can considerably correspond to the claimed auxiliary for controlling the light beam (see col. 14, lines 21-32).

As to claim 12, Ogawa teaches either the switch (21s) or the switch (21d) turning the light beam on and off (col. 14, lines 21-44).

As to claim 13, Ogawa teaches the auxiliary switch (21d) causing the abrupt change in the light beam to simulate a condition where the tip contacts the input surface (col. 14, lines 59-64).

As to claim 14, Ogawa teaches the auxiliary switch (21s, 21d) causing a change in the beam intensity (col. 15, lines 43-45).

As to claim 15, since Ogawa teaches the switch (21s) causing the light beam to include a green light component and the switch (21d) causing the light beam to include one of different amount of red and blue light components (Fig. 19; col. 14, lines 37-64) and each of color

components modulated independently (Fig. 19; col. 14, line 37 through col. 15, line 52), Ogawa teaches the auxiliary switch causing a change in the beam modulation.

As to claim 16, Ogawa teaches the abrupt change is a change in light beam color (col. 14, lines 59-64). Note that the blue light has a different wavelength from that of the red light. Accordingly, Ogawa teaches the auxiliary switch causing a change in the beam wavelength.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa.

As to these claims, Ogawa discloses all limitations of these claims except that the change in beam modulation is a change in frequency modulation (of claim 6), a change in duty cycle of the modulation (of claim 7), or a change in pulse width of the modulation (of claim 8), and the abrupt change is a change in polarization (of claim 10). However, Official Notice is taken that both the concept and the advantages of utilizing a change in frequency modulation, duty cycle of the modulation, or pulse width of the modulation, as the change in the beam modulation, and an abrupt change being a change in polarization, to provide additional information inputted from the stylus to an optical digitizer are well-known and expected in the art. Therefore, it would have been obvious to utilize a change in frequency modulation, duty cycle of the modulation, or pulse width of the modulation, as the change in the beam modulation, or an abrupt change being a

change in polarization in the stylus of Ogawa, because this would provide a user additional function(s) for specific application(s), based on a change in frequency modulation, duty cycle of the modulation, pulse width of the modulation, or in polarization.

***Response to Arguments***

7. Applicant's arguments filed 07/21/2008 have been fully considered but they are not fully persuasive as follows:

Applicant argues that the Office Action does not clearly explain how Ogawa's stylus can be construed as emitting a light beam having a property "that abruptly changes" when the tip of the stylus sufficiently contacts the input surface (see page 5, last paragraph, of the amendment). In response, Examiner explains in the detailed rejection above. Applicant argues that Ogawa does not teach that the green light changes to red and/or blue light when the tip sufficiently contacts the input surface (see page 6, paragraph beginning with "First," of the amendment). As discussed in the detailed rejection above, Ogawa teaches that when the user operates the stylus from case (i) to case (ii) (see the rejection to claim 1 above), the light beam including green only (in case (i)) abruptly changes to a light beam including a combined/mixed light of red and blue (in case (ii)).

Applicant further argues that although Ogawa does discuss light from the red and blue LEDs being associated with the stylus tip contacting the input surface, there is no abrupt change from one to the other (see page 6, paragraph beginning with "Second," of the amendment). Examiner agrees and notes that claim 1 does not require an abrupt change from red to blue. Further, note that a (combined/mixed) light beam (by virtue of the lens 24a; Fig. 18) including more red and less blue is different from a (combined/mixed) light beam including less red and

more blue (see the description at col. 14, lines 59-66 discussing that, based upon the writing pressure, a light beam having different light-emitting quantities of red and blue is produced).

With respect to the claim objections and the rejection under 35 USC 112, first paragraph, in the Office action dated 3/18/2008, these objections and rejection are withdrawn in light of the amendment to claims and the cancellation of claims 17-18.

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Friday, 6:30 a.m. - 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jimmy H Nguyen/

Primary Examiner, Art Unit 2629